

What we claim is:

1. An isolated p42 polypeptide expressed by an insect cell which contains a vector that encodes said polypeptide, wherein said polypeptide is more immunogenic in a mammalian host than is the same polypeptide expressed in yeast.
- 5 2. The polypeptide of Claim 1 further comprising a pharmaceutically acceptable carrier.
3. The polypeptide of Claim 1, wherein the insect cell is selected from the group consisting of *Spodoptera frugiperda*, *Spodoptera exigua*, *Choristoneura fumiferana*, *Trichoplusia ni* and *Spodoptera littoralis*.
- 10 4. The polypeptide of Claim 1, wherein said polypeptide is a *Plasmodium falciparum* polypeptide.
- 5 5. The polypeptide of Claim 4, wherein said *Plasmodium falciparum* polypeptide is an allelic form selected from the group consisting of MAD, K1, and Wellcome.
- 15 6. The polypeptide of Claim 1, wherein the transmembrane domain of said polypeptide is deleted.
7. The polypeptide of Claim 1, wherein said polypeptide is fused to a second polypeptide.
- 20 8. The polypeptide of Claim 7, wherein said second polypeptide is a leader sequence fused to the amino terminus of said polypeptide.
9. The polypeptide of Claim 1 further comprising an adjuvant.
10. The polypeptide of Claim 9, wherein said adjuvant is selected from the group consisting of Freund's complete adjuvant, Freund's incomplete adjuvant, B30-MDP, LA-15-PH, saponin, aluminum hydroxide, MF59, MTP-PE, QS-21, ISA51 and combinations thereof.

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11. The polypeptide of Claim 1, wherein said vector is a baculovirus vector.
12. The polypeptide of Claim 1, wherein said mammalian host is a primate.
13. The polypeptide of Claim 1, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:
- 5 (a) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:2;
(b) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:3;
(c) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:4;
(d) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:5; and
(e) combinations thereof.
14. The polypeptide of Claim 1, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:
- (a) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:2;
(b) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:3;
(c) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:4;
(d) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:5; and
(e) combinations thereof.
15. An anti-plasmodium immunogen comprising an immunogenic amount of an isolated p42 polypeptide expressed by an insect cell which contains a vector that encodes said polypeptide, wherein said polypeptide is more immunogenic in a mammalian host than is the same polypeptide expressed in yeast.
16. The immunogen of Claim 15 further comprising an adjuvant.
17. The immunogen of Claim 16 wherein said adjuvant is selected from the group consisting of Freund's complete adjuvant, Freund's incomplete adjuvant, B30-MDP, LA-14-PH, saponin, aluminum hydroxide, MF59, MTP-PE, QS-21, ISA51, and combinations thereof.
18. The immunogen of Claim 15, wherein said polypeptide comprises an amino acid

sequence selected from the group consisting of:

- (a) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

5 19. The immunogen of Claim 15, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

10 20. A method of inducing an anti-plasmodium immune response in a mammal comprising administering to said mammal the immunogen of Claim 15, 16, 17, 18, or 19.

15 21. The method of Claim 20, wherein said immune response substantially reduces plasmodium parasitemia in said mammal.

20 22. The method of Claim 20, wherein said mammal is a primate.

23. A method of producing a composition comprising a p42 polypeptide, wherein said polypeptide is more immunogenic in a mammalian host than is the same polypeptide expressed in yeast comprising, causing an insect cell which contains a vector that encodes said polypeptide to express said polypeptide.

24. The method of Claim 23 further comprising purifying said polypeptide.

25 25. The method of Claim 23, wherein the insect cell is selected from the group consisting of *Spodoptera frugiperda*, *Spodoptera exigua*, *Choristoneura fumiferana*,

/Trichoplusia ni and Spodoptera littoralis.

26. The method of Claim 23, wherein said polypeptide is a *Plasmodium falciparum* polypeptide.
27. The method of Claim 26, wherein said *Plasmodium falciparum* polypeptide is an allelic form selected from the group consisting of MAD, K1, and Wellcome.
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28. The method of Claim 23, wherein the transmembrane domain of said polypeptide is deleted.
29. The method of Claim 23, wherein said polypeptide is fused to a second polypeptide.
30. The method of Claim 29, wherein said second polypeptide is a leader sequence.
31. The method of Claim 23, further comprising adding an adjuvant to said polypeptide.
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32. The method of claim 31, where said adjuvant is selected from the group consisting of Freund's complete adjuvant, Freund's incomplete adjuvant, B30-MDP, LA-15-PH, saponin, aluminum hydroxide, MF59, MTP-PE, QS-21, ISA51 and combinations thereof.
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33. The method of Claim 23, wherein said vector is a baculovirus vector.
34. The method of Claim 23, wherein said mammalian host is a primate.
35. The method of Claim 23, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:
- (a) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:2;
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- (b) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:5; and

(e) combinations thereof.

36. The method of Claim 23, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

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